# SONY   UP5200MD SERIES

OWNER'S MANUAL

SYSTEM OVERVIEW

System configuration

Connect a video machine capable of sending a video image to the printer. Connect a video monitor to the printer to view an image before printing it. If you connect another monitor to the video source, you can also view the moving video image being output by the source.

Video source
Plays the video information to be printed. Connect a video source such as a video recorder.

Video monitor
Displays the playback images and the image to be printed. Also displays the printer menus and messages.

Color video printer

Remote control unit (supplied)
Allows you to operate the printer remotely.

Optional video monitor
Provides uninterrupted viewing of the video source

Ink ribbon cassette and paper

The video printer uses ink ribbon cassettes and special paper. The cassette and sheets are sold as sets; a set for color printing on paper, for monochrome printing on paper, and for color printing on OHP transparencies. Use the appropriate cassette/paper set:

Color printing pack UPC-5010A (One pack is supplied)
One pack includes an ink ribbon cassette and 100 sheets of $5^3/_4$ x $8^3/_8$ paper.

Monochrome printing pack UPC-5020A (not supplied)
One pack includes a B & W ink ribbon cassette and 100 sheets of $5^3/_4$ x $8^3/_8$ paper.

OHP printing pack UPC-5030 (not supplied)
One pack includes an OHP ink ribbon cassette and 50 sheets of $5^3/_4$ x $8^3/_8$ OHP transparencies.

Video signals that can be processed by the color video printer

You can connect the following signal sources to the printer.
The signals outlined below can be processed by the color video printer. The way they are actually connected is described on page 18.

Composite video signals
from VTRs, video cameras, Mavicas, videodisc players and still image transceivers

VIDEO

Separate luminance (Y) and chrominance (C) signals
from VTRs, Mavicas, and other video equipment having a terminal for separate (S) video signals.

S-VIDEO

RGB video signals (analog) [1]
from personal computers, Mavicas, and still image transceivers

RGB

Component signals [1]
from Betacam VTRs, Mavicas, and still image transceivers

R-Y/Y/B-Y

1) Switch between RGB video signals or component signals with the RGB/R-Y/Y/B-Y selector on the rear panel.

# 1-2. LOCATION AND FUNCTION OF PARTS AND CONTROLS

Window display
This window displays the messages that also appear at the bottom of the monitor screen. Also displays the video monitor line to which the cursor is positioned on the menu screen. When an error occurs, an error message is also displayed. For details of the differences between the screen display and window display, see "Differences between video monitor and printer display" on page 81.

ALARM lamp
This lamp lights when the print paper is jamming or another error occurs.

Menu operation buttons

Basic operation buttons

SOURCE/MEMORY button
Use to select the output signal for the image to be displayed on the video monitor.

MENU button
Use to display menus or to return to the previous screen.

MEMORY IN button
Use to store an image in memory

PRINT button
Push to make prints.

STOP button
Press to stop printing midway

EXEC button
Use to clear images in memory and to enter a caption.

MEMORY PAGE button
Use to select the memory page.

Use to move the cursor.

Remote control unit

Operation is the same as the printer operation buttons.

PRINT QTY + and – buttons
Use to set the number of copies of one print directly on the regular screen.
+: increase
–: decrease

MULTI PICTURE button
Use to directly access MENU 1 from the regular screen. Press this button again to return to the regular screen.

COLOR ADJUST button
Use to directly access the COLOR ADJUST menu from the regular screen.
Press this button again to return to the regular screen.

Remote sensor

Print tray

POWER switch

REMOTE 1 connector
Connect the remote control unit used as a wired type.

Paper tray

Push

Push

Pull towards you.

Controls for compensating the input signal
Use to compensate the color quality of the input signal (see page 71)

EJECT button
Push to eject the ink ribbon cassette.

Insert an ink ribbon cassette.

RGB/R-Y/Y/B-Y selector
Set this switch according to the output signal of the connected video equipment.
RGB: when connecting equipment that outputs an RGB video signal.
R-Y/Y/B-Y: when connecting equipment with the component signal.

MONITOR RGB controls
Use to match the video monitor color with the printout color (see page 73)

Connect video equipment.

75-ohm termination switch (for RGB signals or component video signals)

Set to ON usually. Set to OFF if the input signal drops when you connect additional equipment to the video equipment.

75-ohm termination switch (for NTSC composite video signal)

Connect the video monitor.

RS-232C connector
Connect the computer. For details, refer to "Color Video Printer Interface Manual UPM-5000" (not supplied).

AC IN connector

REMOTE 2 connector
Connect the FS-20 foot switch (not supplied) or automatic printing capabilities. (See page 21)

1-3. CONNECTIONS

Make the necessary connections as follows.

1 Connect the AC power cord.

AC power cord

Note
For safety, connect the AC power cord to the AC outlet after you have made all connections.

2 Connect the video monitor.

Connecting a monitor with RGB inputs

to R
to G
to B
to SYNC
to RGB input connectors

Connecting a video monitor with separate Y/C video input

to S-VIDEO
to S video input connector

Connecting a video monitor with only NTSC composite video input

to VIDEO
to video input connector
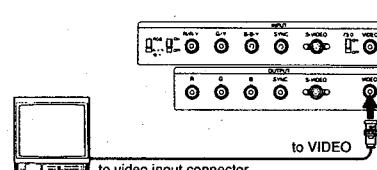
Note
When you connect the printer to the NTSC composite video input, it may be difficult to match the color shown on the monitor with that of the printouts.

3 Connect video equipment.

Connecting equipment that outputs an RGB video signal [1]

to R
to G
to B
to SYNC
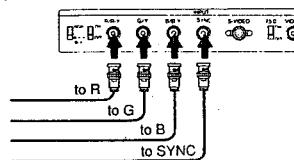
You do not need to make a connection to the SYNC connector when a sync signal is added to the G signal.

Connecting equipment that outputs a separate Y/C signal

to S-VIDEO
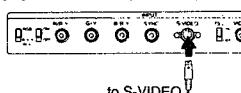
Connecting equipment that outputs a component signal [2]

to R-Y
to Y
to B-Y
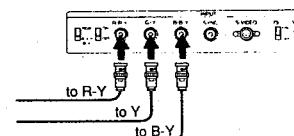
Connecting the equipment with an NTSC composite video signal

to VIDEO
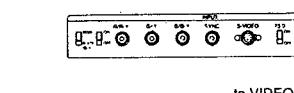
1) When you connect equipment that outputs an RGB video signal, set the RGB/R-Y/Y/B-Y selector to RGB.
2) When you connect equipment that outputs a component signal, set the RGB/R-Y/Y/B-Y selector to R-Y/Y/B-Y.

Assembly

Insert the supplied paper tray and print tray.

Print tray

Paper tray
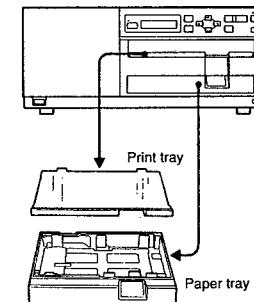
Location

Leave enough room around the printer for air to circulate through the vents on the left and right sides and out of the fan on the back panel.

Right side

Rear panel

Left side

Vents
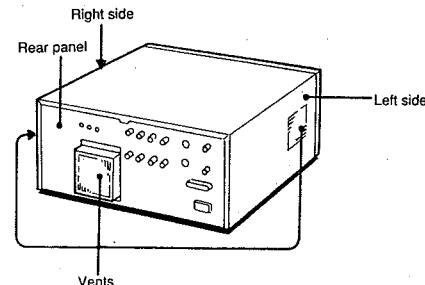
1-4. LOADING AN INK RIBBON CASSETTE

1 Remove the stopper from the ink ribbon cassette.
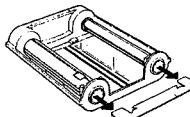
2 Take up any slack in the ribbon to prevent it crumpling when you insert it.

When using a new ink ribbon:
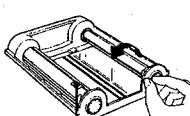
Turn the ribbon so that the mark indicating the start position is visible on the larger roll.

When using a half-used ribbon:
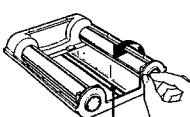
Position the black bars between the two rolls.

3 Open the ribbon door
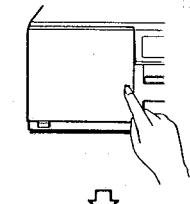
4 To remove an ink ribbon cassette from the printer, press the EJECT button and lift out the cassette.
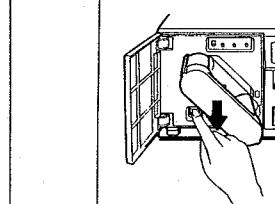
5 Insert the new ink ribbon cassette and push it firmly in the center until it clicks into place.

Press the center.
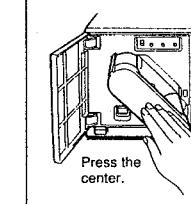
Close the ribbon door.
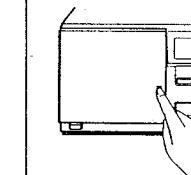
Caution
Never put your hand into the ink ribbon cassette dock. The thermal head becomes very hot. You may burn yourself if you touch it.

Notes on storing ink ribbons
• Avoid placing the ink ribbon cassette in a location subject to:
  – high temperatures
  – high humidity
  – excessive dust
  – direct sunlight
• Keep the ribbon packaging for storing partially used ribbons.

Notes on using the ink ribbon cassette
• Do not touch the ribbon or place the cassette in a dusty area. Finger prints dust on the ink ribbon will leave imperfections on your printouts.

• If your ink ribbon should tear, repair the tear with transparent tape. There should be no problem in using the remaining portion of the ribbon.

Transparent tape

Note
If you have to repair a ribbon with transparent tape, advance the ribbon to the next group of black bars before inserting the ink ribbon cassette into the printer.

1-5. LOADING PRINT PAPER

Load paper into the color video printer as follows.

1 Remove the paper tray.

Push in to eject.
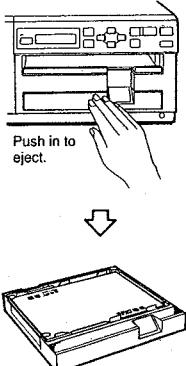
Remove the protection sheet if there is one in the tray.

**2 Load the print paper in the paper tray.**

Ruffle the stack of printing paper before placing it into the tray.

Hold the print paper with the protection sheet at the bottom, being careful not to touch the printing surface.


Printing surface protection sheet

Printing surface
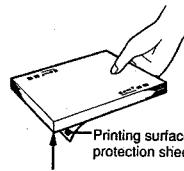
Place the paper in the paper tray.

The black marks should be facing up.
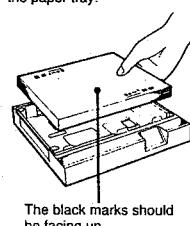
Load the paper securely under the teeth.

Teeth

The paper will be fed into the printer from the top of the tray.
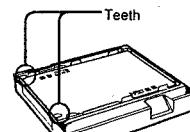
Note

The paper tray holds up to 100 sheets of paper (one package) or 50 OHP transparencies (one package). If you try to load more sheets than this, an error is likely to occur.

Load paper up to this line. Leave a space between the teeth and the print paper.
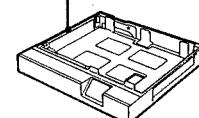

3 Slide the paper tray back into the printer. Push it in until it clicks into place.
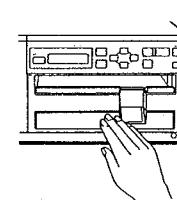

Loading transparencies (OHP sheets)

When placing OHP transparencies into an empty tray, load the transparencies with the protection sheet on the bottom.

Printing surface protection sheet
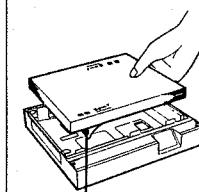
When placing OHP transparencies into a tray which already contains paper, load the sheets on top of the paper with their printing surface down and the back marks facing up.

Do not touch the printing surface
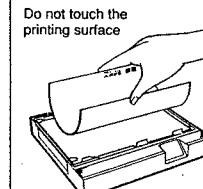
It is not necessary to include a protection sheet.

Preparing OHP transparencies

After you have printed on an OHP sheet, peel it from its backing paper. Never attempt to peel it before printing.


Peel here
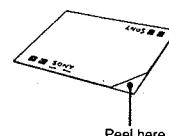
Peel carefully
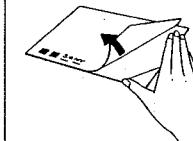
Note on using paper and OHP transparencies

Do not touch the printing surface. Fingerprints or dust stuck to the printing surface will remain as imperfections. When handling the paper and OHP sheets, keep the protection sheet in place to keep the printing surface clean.

Printing surface
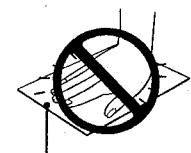
Notes on storing paper and transparencies (OHP sheets)
- Avoid placing the paper or OHP sheets in a location subject to:
  – high temperatures
  – high humidity
  – excessive dust
  – direct sunlight
- Keep the packaging for storing unused paper and OHP transparencies.

1-6. MAKING PRINTS

This section explains how to print a full-size image. The following explanation covers the basic printing operation.

Note
If your printer is set to print four or nine reduced images, change the setting to full-size before printing.

**1** Check the ink ribbon cassette and the paper.
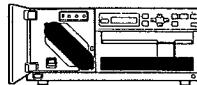
To print on paper
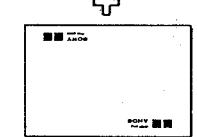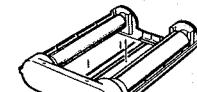
To print on OHP transparencies
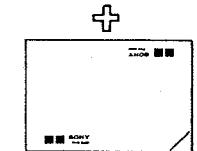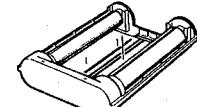
2 Turn on the printer and the video monitor.

SONY COLOR VIDEO PRINTER
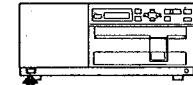
When the printer is ready, the following screen appears.

QTY1 1A1B 2A2B   B

3 Press the MENU button to display the MENU 1 screen.

```
MENU1          COLOR 00

▶PRINT QTY : 001
 MULTI PIX : 1/4/9
 SEPARATE  : · · · ·
 INPUT SEL : V/S-VIDEO/R
 FRM/FLD   : FRAME/FIELD
 SHARPNESS : L/M/H

 MENU2     : [>]
```
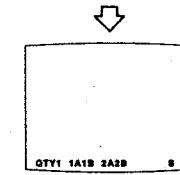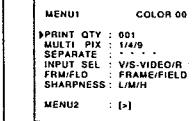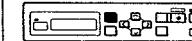
4 Select the input signal for the image you want to print.
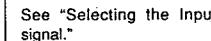
See "Selecting the Input signal."

5 Move the cursor ▶ to MULTI PIX by pressing the △ or ▽ buttons.

```
MENU1          COLOR 00

 PRINT QTY : 001
▶MULTI PIX : 1/4/9
 SEPARATE  : · · · ·
 INPUT SEL : V/S-VIDEO/R
 FRM/FLD   : FRAME/FIELD
 SHARPNESS : L/M/H

 MENU2     : [>]
```
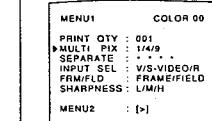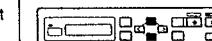
6 Switch 1 to green by pressing ◁ or ▷ buttons.

```
MENU1          COLOR 00

 PRINT QTY : 001
▶MULTI PIX : 1/4/9
 SEPARATE  : · · · ·
 INPUT SEL : V/S-VIDEO/R
 FRM/FLD   : FRAME/FIELD
 SHARPNESS : L/M/H

 MENU2     : [>]
```

1 is switched to green.

Anything printed out subsequently will be a full-size image.

To return to the regular screen:
Press the MENU button.
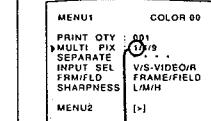
7 Play back the video images.
(to be continued)

8 When the image you want to print is on the screen, press the MEMORY IN button to store it in memory.
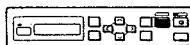
The stored image appears on the screen.

When the stored image is blurred
A quickly moving image may be blurred when it is printed. If this happens, switch the memory mode from frame to field to eliminate the blur. However, since printing in field mode has lower resolution than in the frame mode, the print quality will be slightly lower. (For details, see page 62).

The blur is eliminated.

Frame mode   Field mode

To change the image to print
① Press the SOURCE/MEMORY button to return to the playback image.
② Press the MEMORY IN button again to store a new image in memory. The previous image is replaced with the new one.

9 Press the PRINT button.

It takes about one minute to print one page.
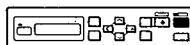
Blinks during the printing process. Printing starts - yellow - magenta -cyan - printing ends.

Note
The paper is ejected over the print tray at several stages during the printing process. Do not handle the paper until printing has been completed.
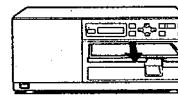
When it is complete, the printout is pushed forward.

To stop printing before completion
Press the STOP button. Printing ends immediately and the paper is ejected to the print tray.

When you want to see an image that is hidden below a screen message
You can erase the screen messages on the video monitor. For details, see page 74.

To store other images in memory during printing
You cannot store an image in memory where the image which you are printing is stored. Select another memory page and store the next image in that memory page.
① Select another memory page by using the MEMORY PAGE button.
② When the image you want to print is on the monitor, press the MEMORY IN button to store it in memory.

When the printer does not print
• Whenever an error message is displayed on the video monitor, the printer will not print. To correct the error, see "Error Messages" on page 84.
• When you turn the power off, the image stored in memory is erased. To subsequently print an image, you must store it again.

Notes on preserving your printouts
• Do not place a printout under a clear vinyl desk mat or in a clear plastic file that contains a plasticizer. Also, avoid leaving plastic erasers on top of the prints. The ink will stick to the plastic surface.
• Be sure not to leave the printed surface of an OHP transparency pressed against anything (even objects that are not plastic or vinyl). The ink may come off onto the other surface.
• To avoid degradation of the color do not place the prints in locations subject to:
– direct sunlight
– high temperatures
– high humidity

Making more than one copy of an image

You can print up to 100 copies of a stored image. Do the following before printing or while printing the first copy. You can change the designated number of copies at any time before printing has ended.

When controlling the printer with the supplied remote control unit
You can designate or change the number of copies on the regular screen, instead of the menu screen, by using the PRINT QTY + and − buttons. You can designate or change the number even during printing.

Display of the print quantity
The number of copies is displayed on moniter screen and printer window display as follows.

Qty	Monitor display	Printer window display
1	QTY1	Q1
10	Q010	10
99	Q099	99
100	Q100	00

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1 Press the MENU button.
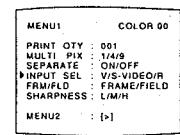
MENU 1 appears.

2 Move the cursor ▶ to "PRINT QTY" by pressing the [ ] or [ ] buttons.
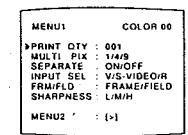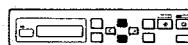
3 Set the number of copies by pressing the ◁ or ▷ buttons.

Quantity decreases. — Quantity increases.

Number of copies (QTY stands for quantity)

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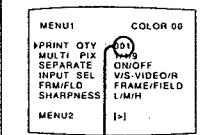
4 Press the MENU button to return to the regular screen.

Regular screen

The printer prints out the same image until the ribbon or the paper has been exhausted.

When the paper is exhausted during printing
Fill the tray with paper and press the PRINT button again.
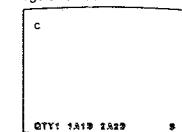
To check how much ink ribbon remains
Press the MENU button.
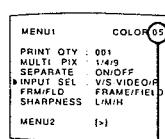
Indicates the remaining quantity.

Notes on remaining ribbon
• The video monitor displays the remaining number of printouts available from the ribbon last used for printing, even when a new ribbon is inserted. After the printer makes the first print out, the remaining ribbon of the new ribbon is displayed.
• The printer does not recognize any change when a ribbon is replaced by another of the same type (for example, two color ribbons) and continues subtracting from the original count as prints are made. The correct number of remaining printouts is not displayed. The print function, however, is unaffected.

1-7. ADJUSTING PRINT QUALITY AND COLOR

This section explains how to adjust and store a picture's sharpness, color intensity and contrast.

Adjusting the sharpness

You can set the sharpness of the printout to one of three levels: L (Low), M (Medium) or H (High). A printout appears softer or sharper depending on the definition of the subject outline. Change this setting before printing as necessary. The new setting remains valid until you enter a new setting - even if you turn the power off.

1 Press the MENU button.

```
MENU1          COLOR 00
PRINT QTY : 001
MULTI PIX : 1/4/9
SEPARATE  : · · · ·
▶INPUT SEL : V/S-VIDEO/R
 FRM/FLD   : FRAME/FIELD
 SHARPNESS : L/M/H
 MENU2     : [>]
```

2 Move the cursor ▶ to SHARPNESS by pressing the △ or ▽ buttons.

```
MENU1          COLOR 00
PRINT QTY : 001
MULTI PIX : 1/4/9
SEPARATE  : · · · ·
INPUT SEL : V/S-VIDEO/R
FRM/FLD   : FRAME/FIELD
▶SHARPNESS : L/M/H
MENU2     : [>]
```

3 Switch the letter corresponding to the desired sharpness to green by pressing the ◁ or ▷ buttons.

```
MENU1          COLOR 00
PRINT QTY : 001
MULTI PIX : 1/4/9
SEPARATE  : · · · ·
INPUT SEL : V/S-VIDEO/R
FRM/FLD   : FRAME/FIELD
▶SHARPNESS : L/M/H
MENU2     : [>]
```

L (Low): soft outline
M (Medium): normal outline
H (High): sharp outline

Note
The image on the video monitor does not reflect any change in the sharpness setting.

Displaying the COLOR ADJUST menu screen

1 Press the SOURCE/MEMORY button to display the image stored in memory. (You can also adjust the input image.)

```
MENU1          COLOR 00
PRINT QTY : 001
MULTI PIX : 1/4/9
SEPARATE  : · · · ·
▶INPUT SEL : V/S-VIDEO/R
 FRM/FLD   : FRAME/FIELD
 SHARPNESS : L/M/H
 MENU2     : [>]
```

The MENU 1 screen appears.

2 Press the MENU button.

3 Move the cursor ▶ to MENU 2 by pressing the △ or ▽ buttons, then press the □ button.

```
MENU1          COLOR 00
PRINT QTY : 001
MULTI PIX : 1/4/9
SEPARATE  : · · · ·
INPUT SEL : V/S-VIDEO/R
FRM/FLD   : FRAME/FIELD
SHARPNESS : L/M/H
▶MENU2     : [>]
```

```
MENU2
▶COLOR ADJ. : [>]
 ALL CLR    : [>]
 PART CLR   : [>]
 CAPTION    : [>]
 SET UP     : [>]
 MENU1      : [>]
```

The MENU 2 screen appears.

4 Move the cursor ▶ to COLOR ADJ by pressing the ⬜ or ⬜ buttons, then press the ⬜ button.

MENU2

▶COLOR ADJ : [>]
ALL CLR : [>]
PART CLR : [>]
CAPTION : [>]
SET UP : [>]

MENU1 : [>]

⬇

COLOR ADJUST
DISPLAY: FULL/SINGLE
PRESET : 1/2/3
RED : +3 ⋯⋯⋮⋯⋯
▶GREEN : -3 ⋯⋯⋮⋯⋯
BLUE : 0 ⋯⋯⋮⋯⋯
DARK : 0 ⋯⋯⋮⋯⋯
LIGHT : 0 ⋯⋯⋮⋯⋯
CHECK : [>]
SAVE : [>]
MENU1 : [>]
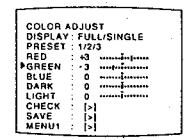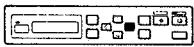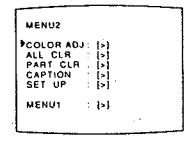
The COLOR ADJUST menu appears.

How to read the COLOR ADJUST menu

This part outlines each item of the COLOR ADJUST menu. Read it thoroughly before adjusting the color for the first time.

COLOR ADJUST
▶DISPLAY FULL/SINGLE
PRESET 1/2/3
RED +3 ⋯⋯⋮⋯⋯
GREEN -3 ⋯⋯⋮⋯⋯
BLUE 0 ⋯⋯⋮⋯⋯
DARK 0 ⋯⋯⋮⋯⋯
LIGHT 0 ⋯⋯⋮⋯⋯
CHECK [>]
SAVE [>]
MENU1 [>]
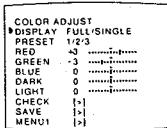
DISPLAY

Selecting the method of displaying the color adjusting screen

Full display

COLOR ADJUST
DISPLAY FULL/SINGLE
PRESET 1/2/3   TEMP
RED +3 ⋯⋯⋮⋯⋯
▶GREEN -3 ⋯⋯⋮⋯⋯
BLUE 0 ⋯⋯⋮⋯⋯
DARK 0 ⋯⋯⋮⋯⋯
LIGHT 0 ⋯⋯⋮⋯⋯
CHECK [>]
SAVE [>]
MENU1 [>]
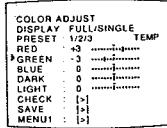
Preset number

Single display

PRESET ⬤⬤ — Indicates that the preset value is temporarily changed. TEMP disappears when you save the set value. (TEMP stands for temporary)
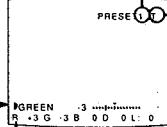
▶GREEN -3 ⋯⋯⋮⋯⋯
R +3 G -3 B 0 D 0 L 0

Preset value of R, G, B, D and L (this example shows the preset value for preset 1)

Displays the item under the presetting process and the value lighting in green on the line to which the cursor is positioned.

PRESET

Three presettings are available. Select one of these three. The stored values for color intensity and picture contrast are called from memory and appear against each item. TEMP appears at the right of this line when you change the presetting to indicate that the values only temporary.

RED/GREEN/BLUE

Adjusting the color intensity (see page 42)

DARK/LIGHT

Adjusting the picture contrast (see page 44)

CHECK

Used to erase the menu screen when it is difficult to check the adjusted color. Move the cursor ▶ to CHECK. The menu screen is not displayed for as long as you keep the ⬜ button held down. We recommend that you check the set color before storing it.

SAVE

Storing the set value for the color in the selected presetting number.

MENU 1

Returning to MENU 1

Adjusting the color intensity

Adjust a printout's color intensity by separately adjusting the r (red), g (green) and b (blue) parts of the image while it is displayed on the video monitor.

1 Display the COLOR ADJUST menu screen.

COLOR ADJUST
DISPLAY : FULL/SINGLE
PRESET : 1/2/3
▶RED : +3 ⋯⋯⋮⋯⋯
GREEN : -3 ⋯⋯⋮⋯⋯
BLUE : 0 ⋯⋯⋮⋯⋯
DARK : 0 ⋯⋯⋮⋯⋯
LIGHT : 0 ⋯⋯⋮⋯⋯
CHECK : [>]
SAVE : [>]
MENU1 : [>]
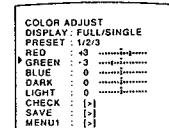
2 Move the cursor ▶ to one of three color components; R, G and B by pressing the ⬜ or ⬜ buttons.

COLOR ADJUST
DISPLAY : FULL/SINGLE
PRESET : 1/2/3
RED : +3 ⋯⋯⋮⋯⋯
▶GREEN : -3 ⋯⋯⋮⋯⋯
BLUE : 0 ⋯⋯⋮⋯⋯
DARK : 0 ⋯⋯⋮⋯⋯
LIGHT : 0 ⋯⋯⋮⋯⋯
CHECK : [>]
SAVE : [>]
MENU1 : [>]
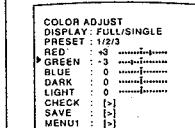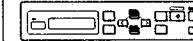
3 Adjust the intensity of the selected color component by pressing the ⬜ or ⬜ buttons.

COLOR ADJUST
DISPLAY : FULL/SINGLE
PRESET : 1/2/3   TEMP
RED : +3 ⋯⋯⋮⋯⋯
▶GREEN : -3 ⋯⋯⋮⋯⋯
BLUE : 0 ⋯⋯⋮⋯⋯
DARK : 0 ⋯⋯⋮⋯⋯
LIGHT : 0 ⋯⋯⋮⋯⋯
CHECK : [>]
SAVE : [>]
MENU1 : [>]
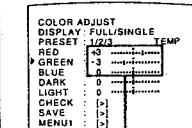
Color component is divided into 16 scales from –7 to +8, indicated by a value and graph. 0 and the center of the graph correspond to the standard color.

The intensity increases in the + direction and decreases in the – direction.

By pressing the ⬜ and ⬜ buttons together, you can quickly reset the value to 0 (standard value). Pressing the ⬜ and ⬜ buttons on the supplied remote control unit does not allow you to reset the value to 0.

Note
This set value is only temporary. This setting is cleared when you turn the printer off.

When it is difficult to check the settings because of the display on the monitor
To check your settings, you can erase the display using either of the following two methods.
• Select the SINGLE screen.
Move the cursor ▶ to DISPLAY and switch SINGLE of FULL/ SINGLE to green by pressing the ◁ or ▷ buttons.
You can select the item to be adjusted by pressing the △ or ▽ button on the SINGLE screen.
• Erasing the display temporarily
Move the cursor ▶ to CHECK and press the ▷ button. For as long as you keep the ▷ button held down, the display does not appear on the screen.

Adjusting the picture contrast
Adjust the picture contrast of a print by adjusting the extremes of dark and light of the image with the COLOR ADJUST menu screen, while viewing the image on the video monitor.

1 Display the COLOR ADJUST menu screen.

```
COLOR ADJUST
DISPLAY : FULL/SINGLE
PRESET : 1/2/3
RED     : +3   ------|------
▶GREEN  : -3   ------|------
BLUE    :  0   ------|------
DARK    :  0   ------|------
LIGHT   :  0   ------|------
CHECK   : [>]
SAVE    : [>]
MENU1   : [>]
```
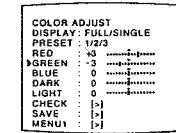
2 Move the cursor ▶ to either DARK or LIGHT by pressing the △ or ▽ buttons.

```
COLOR ADJUST
DISPLAY : FULL/SINGLE
PRESET : 1/2/3
RED     : +3   ------|------
GREEN   : -3   ------|------
BLUE    :  0   ------|------
▶DARK   :  0   ------|------
LIGHT   :  0   ------|------
CHECK   : [>]
SAVE    : [>]
MENU1   : [>]
```

DARK: Adjusts the dark area of an image
LIGHT: Adjusts the light area of an image
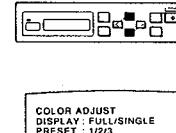
3 Adjust the selected picture contrast by pressing the ◁ or ▷ buttons.

```
COLOR ADJUST
DISPLAY : FULL/SINGLE
PRESET : 1/2/3        TEMP
RED     : +3   ------|------
GREEN   : -3   ------|------
BLUE    :  0   ------|------
▶DARK   :  0   ------|------
CHECK   : [>]
SAVE    : [>]
MENU1   : [>]
```
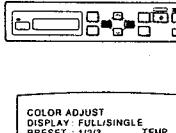
Contrast is divided into 16 scales from –7 to +8, and indicated by a set value and graph. 0 and the center of the graph correspond to the standard contrast.
The contrast in the dark area or light area is strengthened in the + direction and weakened in the – direction.

By pressing the ◁ and ▷ buttons together, you can quickly reset the value to 0 (standard value).
Pressing the ◁ and ▷ buttons on the supplied remote control unit does not allow you to reset the value to 0.

Note
This set value is only temporary. This setting is cleared when you turn the printer off.

When it is difficult to check your settings because of the display on the monitor.
To check your settings, you can erase the display using either of the following two methods.
- Select the SINGLE screen.
  Move the cursor ► to DISPLAY and switch SINGLE of FULL/SINGLE to green by pressing the ◁ or ▷ buttons.
  You can select the item to be adjusted by pressing the △ or ▽ button on the SINGLE screen.
- Erasing the display temporarily
  Move the cursor ► to CHECK and press the ▷ button. For as long as you keep the ▷ button held down, the display does not appear on the screen.

When the image in a light area of the print does not appear
Select LIGHT and reduce the set value by moving the green scale to the left.

If you still cannot output a good printout
Set the GAIN AUTO/MANUAL selector to MANUAL and, while watching the image on the video monitor, turn the GAIN control counterclockwise until an image in a light area can be seen.

When the image in a dark area of the print does not appear
Select DARK and reduce the set value by moving the green scale to the left.

If you still cannot output a good printout
Set the GAIN AUTO/MANUAL selector to MANUAL and, while watching the image on the video monitor, turn the GAIN control clockwise until an image in a dark area can be seen.

Storing the new picture adjustments in a presetting

You can store up to three presettings. The printer will retain these even if you turn the power off.
This is useful when you are using more than one video player, each of a different quality, and when you want to print images with different color qualities and picture contrasts.

1 Display the image to adjust.

2 Move the cursor ► to PRESET by pressing the △ or ▽ buttons. Switch the number corresponding to the preset to adjust to green by pressing the ◁ or ▷ buttons.


```
COLOR ADJUST
DISPLAY : FULL/SINGLE
►PRESET : 1/2/3
 RED    : +3   ----|----
 GREEN  : -3   ----|----
 BLUE   : 0    ----|----
 DARK   : 0    ----|----
 LIGHT  : 0    ----|----
 CHECK  : [>]
 SAVE   : [>]
 MENU1  : [>]
```

⇩


```
COLOR ADJUST
DISPLAY : FULL/SINGLE
►PRESET : 1/2/3
 RED    : 0   ----|----
 GREEN  : 0   ----|----
 BLUE   : 0   ----|----
 DARK   : 0   ----|----
 LIGHT  : 0   ----|----
 CHECK  : >|
 SAVE   : >|
 MENU1  : >|
```

The selected presetting number is switched green.

3 Adjust the color intensity and the picture contrast. (See pages 42 to 45.)

Note
After you complete the color adjusting, move the cursor ► to CHECK and keep the ▷ button held down to check the adjusted color.

4 Move the cursor ▶ to SAVE by pressing the △ or ▽ buttons, then press the ▷ button.


```
COLOR ADJUST
DISPLAY : FULL/SINGLE
PRESET : 1/2/3          TEMP
RED      : +3   ········!·······
GREEN    : -3   ········!·······
BLUE     : 0    ········!·······
DARK     : 0    ········!·······
LIGHT    : 0    ········!·······
CHECK    :      [>]
▶ SAVE    :      [>]
MENU1    :      [>]
```

⇩

TEMP disappears

```
COLOR ADJUST
DISPLAY : FULL/SINGLE
PRESET : 1/2/3
RED      : +3   ········!·······
GREEN    : -3   ········!·······
BLUE     : 0    ········!·······
DARK     : 0    ········!·······
LIGHT    : 0    ········!·······
CHECK    :      [>]
▶ SAVE    :      [>]
MENU1    :      [>]
```
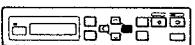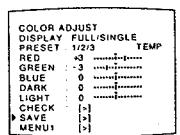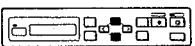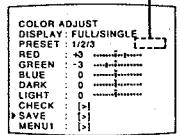
The setting made in step 3 is stored.

To call a stored presetting
Select PRESET from the COLOR ADJUST menu and switch the number corresponding to desired presetting to green.

TEMP displayed in step 3
If you change the settings for a called preset, TEMP appears. This TEMP disappears if you store the setting which you changed, in step 4. You can also print while TEMP is displayed. The printer prints with the temporarily set value, however. By turning the printer off, this temporarily set value is cleared and the settings are reset to those stored before you changed the settings.

1-8. USING THE MEMORY

Frame mode and field mode

This section explains how to use and set the memory. To print an image, you must first store it in memory. Although the memory usually stores a single image, you can set it to store two full-size images having lower resolutions.

As described above, one memory consists of two fields, 1A and 1B. You can use these two fields together or separately. The memory use status is called the "memory mode." There are two memory modes as follows.

- Frame mode
  Two field memories are used together to store one image.
- Field mode
  One field memory, either 1A or 1B, is used to store one field of an image.

The Sony UP-5200MD has one memory which consists of two memory fields.

When you select FRAME mode to use two fields to store one image, 1A 1B appears on the video monitor. When you select FIELD mode where you use one field to store one image, 1A 1B appears.

The Sony UP-5250MD has two memories.

When you select the FRAME mode, 1A1B 2A2B appears on the video monitor. When you select the FIELD mode, 1A 1B 2A 2B appears.

Note
This section explains the use of the memory using the UP-5200MD (which has one memory) as an example. The principle is the same for the two-memory UP-5250MD.

Frame mode and field mode of a full image and reduced images

Full image

A still subject can be printed with high resolution.

A quickly moving subject can be printed without blurring. You can store two images using 1A and 1B separately.
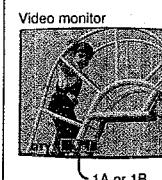
Four reduced images
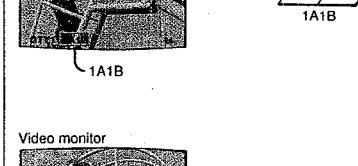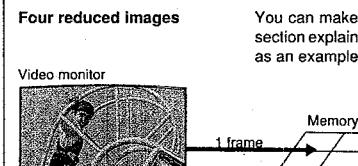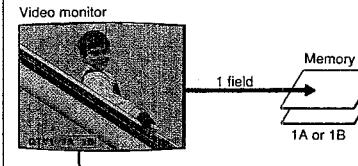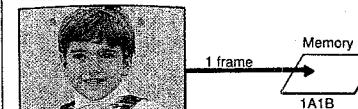
You can make up to nine reduced images. However, this section explains reduced images using four reduced images as an example.
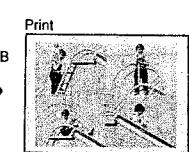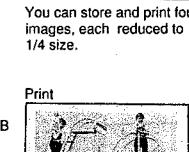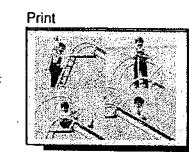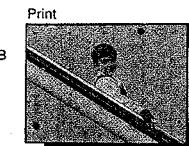
You can store and print four images, each reduced to 1/4 size.
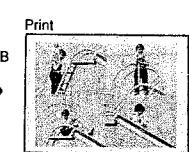
You can print a total of eight images, each reduced to 1/4 size, by using 1A and 1B. (The resolution becomes low.)

Setting the memory mode

1 Press the MENU button to display the MENU 1 screen.
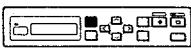

```
MENU1          COLOR 00
▶PRINT QTY : 001
 MULTI  PIX : 1/4/9
 SEPARATE  : ON/OFF
 INPUT SEL : V/S-VIDEO/R
 FRM/FLD   : FRAME/FIELD
 SHARPNESS : L/M/H

 MENU2     : [>]
```

2 Move the cursor ▶ to FRM/FLD by pressing the △ or ▽ buttons.
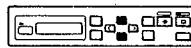

```
MENU1          COLOR 00
 PRINT QTY : 001
 MULTI  PIX : 1/4/9
 SEPARATE  : ON/OFF
 INPUT SEL : V/S-VIDEO/R
▶FRM/FLD   : FRAME/FIELD
 SHARPNESS : L/M/H

 MENU2     : [>]
```

3 Select either of the two memory modes by pressing the ◁ or ▷ buttons.


```
MENU1          COLOR 00
 PRINT QTY : 001
 MULTI  PIX : 1/4/9
 SEPARATE  : ON/OFF
 INPUT SEL : V/S-VIDEO/R
▶FRM/FLD   : FRAME/FIELD
 SHARPNESS : L/M/H

 MENU2     : [>]
```

The selected memory mode is switched to green.

FRAME: Usually, we recommend that you print in this mode.
FIELD: Select this mode to reduce the blurring when you print a quickly moving.

Selecting the memory page

The memory used to store an image is called a memory page. Even when we use two memory fields in the frame mode to store one image, we call this 1A1B one memory page.
Switch the color of the memory page, to be used to store the image, to green, by pressing the MEMORY PAGE button.

Video monitor


```
C




QTY1 1A 1B              S
```
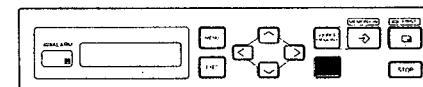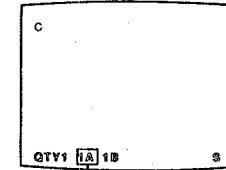
Switch 1A to green to use 1A in field mode.

This section explains how to make prints by combining images as follows; Four reduced images, nine reduced images, print with an insert

Making a printout with four images or nine images

By selecting the appropriate memory setting, you can make a multiple-image print with four reduced images or nine reduced images. You can also make a multiple-image print with white divisions.

1 Press the MENU button to display the MENU 1 screen.

```
MENU1          COLOR 00
▶PRINT QTY : 001
 MULTI PIX : 1/4/9
 SEPARATE  : · · · ·
 INPUT SEL : V/S-VIDEO/R
 FRM/FLD   : FRAME/FIELD
 SHARPNESS : L/M/H

 MENU2     : [>]
```

2 Move the cursor ▶ to MULTI PIX by pressing the △ or ▽ buttons.

```
MENU1          COLOR 00
 PRINT QTY : 001
▶MULTI PIX : 1/4/9
 SEPARATE  : · · · ·
 INPUT SEL : V/S-VIDEO/R
 FRM/FLD   : FRAME/FIELD
 SHARPNESS : L/M/H

 MENU2     : [>]
```
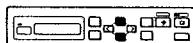
To make a multiple-image printout with four reduced images;
Switch the number 4 to green by pressing the ◁ or ▷ buttons.

To make a multiple-image printout with nine reduced images;
Switch the number 9 to green by pressing the ◁ or ▷ buttons.

```
MENU1          COLOR 00
 PRINT QTY : 001
▶MULTI PIX : 1/4/9
 SEPARATE  : ON/OFF
 INPUT SEL : V/S-VIDEO/R
 FRM/FLD   : FRAME/FIELD
 SHARPNESS : L/M/H

 MENU2     : [>]
```

4 or 9 is switched to green.

3 Move the cursor ▶ to SEPARATE by pressing the ▽ button.
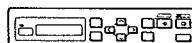
```
MENU1          COLOR 00
 PRINT QTY : 001
 MULTI PIX : 1/4/9
▶SEPARATE  : ON/OFF
 INPUT SEL : V/S-VIDEO/R
 FRM/FLD   : FRAME/FIELD
 SHARPNESS : L/M/H

 MENU2     : [>]
```

To make a multiple print with divisions
Switch ON to green by pressing the ◁ or ▷ buttons.

To make a multiple print without divisions
Switch OFF to green by pressing the ◁ or ▷ buttons.

```
MENU1   COLOR 00
 PRINT QTY : 001
 MULTI PIX : 1/4/9
▶SEPARATE : ON/OFF
 INPUT SEL : V/S-VIDEO/R
 FRM/FLD   : FRAME/FIELD
 SHARPNESS : L/M/H

 MENU2   : [>]
```

ON or OFF is switched to green.

**4** Press the MENU button to return to the regular screen.

```
QTY1 1A1B 2A2B   9
```

**5** Play back the video images.

This shows that four-image printing was selected in step 2.

The green star * indicates where the image will be stored.

**6** When the image you want to print appears on the monitor, press the MEMORY IN button to store the image in the memory.

The image stored in memory appears on the video monitor.

The image is stored where there the green star * is positioned. Then, the green star * moves to the next position.

**7** Press the SOURCE/MEMORY button to return to the playback picture.

**8** Repeat steps 6 and 7 to store four or nine reduced images.
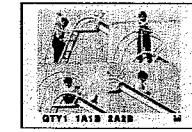
Four-image screen
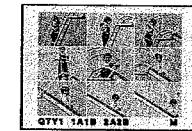
Nine-image screen

**When you want to replace a stored image**
Move the green star * to the image you want to delete by pressing the ◁ or ▷ buttons and store the new image.

**9** Press the PRINT button to make prints.

**Notes**
- If there is already an image under the green star *, it will be replaced by the new image.
- The green star * automatically moves to the next image whenever you re-peat steps 6 and 7. To skip a previously stored image and keep it in memory, move the green star * by pressing the ◁ or ▷ buttons.
- The initial setting for printing with or without divisions is set to ON (with divisions). When you use this printer for the first time and make a printout without divisions, change the setting to OFF.
- When the power is turned on again, the setting is reset to ON anytime.

## Making a printout with an insert

You can make printouts with an insert by using four- or nine-image printing.

**Example:**
Making printouts with one of four reduced images inserted

**1** Play back the video image and press the MEMORY IN button to store the background image (full-size).

**Note**
If your printer is set to print four or nine reduced images, change the setting to fullsize before printing.

**2** Press the MENU button to display the MENU 1 screen.

```
MENU1          COLOR 00
▶PRINT QTY : 001
 MULTI PIX  : 1/4/9
 SEPARATE   : ON/OFF
 INPUT SEL  : V/S-VIDEO/R
 FRM/FLD    : FRAME/FIELD
 SHARPNESS  : L/M/H

 MENU2      [▶]
```
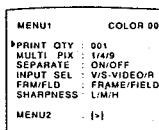
3 Move the cursor ▶ to MULTI PIX by pressing the △ or ▽ buttons and switch the number 4 to green by pressing the ◁ or ▷ buttons.

4 Move the cursor ▶ to SEPARATE by pressing the △ or ▽ buttons. Then switch OFF to green by pressing the ◁ or ▷ buttons.

Note
If you print with SEPARATE set to ON, an image is printed with white divisions.

5 Press the MENU button to return to the regular screen.

6 Move the green star * to the point where the reduced image is to be inserted by using the ◁ or ▷ buttons.

7 Play back the image. Press the MEMORY IN button when the image you want to insert appears.

The insert image is stored in the memory page selected in Step 6.

8 Press the PRINT button to make a printout.

Note
You cannot print an image stored in a different memory.

Storing more than one image

You can store more than one image in memory.

Memory mode	Number of images you can store (for the UP-5200MD)	Number of images you can store (for the UP-5250MD)
Frame mode	One [1]	Two [2]
Field mode	Two [3]	Four [4]

1) This is for full-image printing. Four for four-image-printing and nine for nine-image-printing
2) This is for full-image printing. Eight for four-image-printing and 18 for nine-image-printing
3) This is for full-image printing. Eight for four-image-printing and 18 for nine-image printing
4) This is for full-image printing. 16 for four-image-printing and 36 for nine-image printing

Example:
When you are using the UP-5200MD printer, you store two images in the field mode

1 Press the MENU button to display the MENU 1 screen.

```
MENU1 NO INPUT COLOR 00
▶PRINT QTY : 001
 MULTI PIX : 1/4/9
 SEPARATE  : ON/OFF
 INPUT SEL : V/S-VIDEO/R
 FRM/FLD   : FRAME/FIELD
 SHARPNESS : L/M/H

 MENU2     : [▶]
```

2 Move the cursor ▶ to FRM/FLD by pressing the ◹ or ◺ buttons, then select the memory mode by pressing the ◁ or ◿ buttons.

```
MENU1          COLOR 00
 PRINT QTY : 001
 MULTI PIX : 1/4/9
 SEPARATE  : ON/OFF
 INPUT SEL : V/S-VIDEO/R
▶FRM/FLD   : FRAME/FIELD
 SHARPNESS : L/M/H

 MENU2     : [▶]
```

```
MENU1          COLOR 00
 PRINT QTY : 001
 MULTI PIX : 1/4/9
 SEPARATE  : ON/OFF
 INPUT SEL : V/S-VIDEO/R
▶FRM/FLD   : FRAME FIELD
 SHARPNESS : L/M/H

 MENU2     : [▶]
```

In this example, you select FIELD.
Thus, switch FIELD to green.

3 Press the MENU button to return to the regular screen.

Two field

4 Select the memory page by pressing the MEMORY PAGE button.
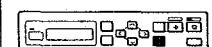
Selected memory is switched to green.

5 Play back the image. Press the MEMORY IN button to store the image in memory.

The image is stored in 1A.

**6** Select other memory page for storing another image by pressing the MEMORY PAGE button.
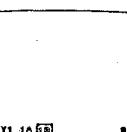
Selected memory is switched to green.

7 Play back the image. Press the MEMORY IN button to store the desired image in the memory.

The image is stored in 1B.

8 Select the memory page where the image you want to print is stored by using the MEMORY PAGE button.

Press the PRINT button to make a printout.

The image in 1B is printed

Deleting an image stored in memory

1 Select the memory page containing the image you want to delete by pressing the MEMORY PAGE button.

2 Press the MENU button to display the MENU 1 screen. Move the cursor ► to MENU 2 by pressing the ☐ or ☐ buttons, then press the ☐ button.

The MENU 2 screen appears.

```
MENU2

►COLOR ADJ : [>]
 ALL CLR   : [>]
 PART CLR  : [>]
 CAPTION   : [>]
 SET UP    : [>]

 MENU1     : [>]
```
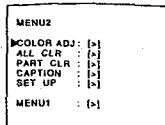
3 Move the cursor ► to ALL CLR or PART CLR, then press the ☐ button.

To delete the full image
Move the cursor to ALL CLR.
To delete a reduced image
Move the cursor to PART CLR.

Note
When you move the cursor ► to PART CLR, the reduced-image screen selected at MULTI PIX on MENU 1 appears. If you want to delete the other reduced images, return to the MENU 1 screen and change the MULTI PIX settings.

4 Press the EXEC button.

The screen or location from which the image was deleted becomes whitish.

To delete the reduced images
Move the green star * to the location where there is the image you want to delete by pressing the ☐ or ☐ buttons, then press the EXEC button.
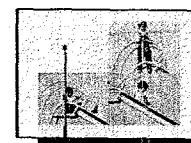
The image in this position is cleared.

When you are deleting reduced images, repeat step 4 until you have to delete all the images you want to delete.

1-9. MAKING PRINTS WITH CAPTION

Making printouts in field mode

You can change the memory mode from frame to field to print an image stored in the frame mode. When a printout is blurred in frame mode, switch to field mode and print the image. You can thus eliminate blurring.

Why does setting the memory to FIELD eliminate blurring?

A monitor displays a video image by sending electron beams across its screen; first every other line, then returning to the top and filling in the spaces to the bottom. Each of the two runs from top to bottom is a field. Together they make up a frame.

First scanning (for 1 field)

Stored in 1A

Second scanning (for 1 field) (The subject has moved.)

Stored in 1B

overlapped image

1A + 1B

Video cameras record images in these half-frames, or fields. The example below illustrates how a quickly moving subject is recorded in two parts - once from top to bottom with alternate gaps, and then again from the top to the bottom filling in every other line. If the subject moves within 1/60th of a second from the first tracking, the second tracking will be slightly offset. When 1A and 1B, each corresponding to one of the two fields of the stored image, are overlapped in the frame setting, 1A1B, the image will appear jittery on the monitor and blurred when printed. Separated into its two fields, however, a quickly moving subject will not be blurred.

313
1
314
2
315
3

624
312
625

313
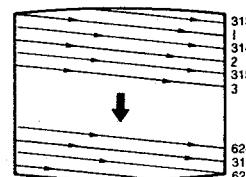
A field is drawn in 1/60th of a second. A frame is completed in 1/30th of a second.

Displaying the CAPTION input screen

You can enter a caption, such a data or comments, in small characters below the image. You can input 60 characters. When you use a computer connected to the RS-232C connector, you can input up to 320 characters (two lines each for the top and bottom of the screen, four lines in total) in the NARROW size and NORMAL size mode and 160 characters (one line each for the top and bottom, two lines in total) in the WIDE size mode.
This section explains how to enter a caption. The order is as follows. • Displaying the CAPTION input screen • Entering a caption • Making printouts with a caption

1 Press the MENU button to display the MENU 1 screen.

The MENU 1 screen appears.

```
MENU1          COLOR 00
▶PRINT QTY : 001
 MULTI PIX : 1/4/9
 SEPARATE  : ON/OFF
 INPUT SEL : V/S-VIDEO/R
 FRM/FLD   : FRAME/FIELD
 SHARPNESS L/M/H

 MENU2      [>]
```

2 Move the cursor ▶ to MENU 2 by pressing the ☑ buttons, then press the ▷ button.

The MENU 2 screen appears.

```
MENU2
▶COLOR ADJ : [>]
 ALL CLR   : [>]
 PART CLR  : [>]
 CAPTION   : [>]
 SET UP    : [>]

 MENU1     : [>]
```
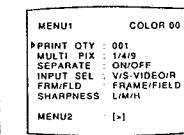
3 Move the cursor ▶ to CAPTION, then press the ▷ button.

The CAPTION input screen appears.
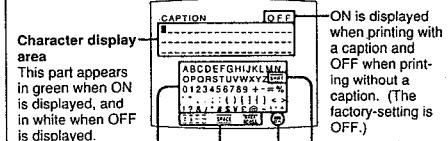
Character display area
This part appears in green when ON is displayed, and in white when OFF is displayed.

Character entry area
The cursor is positioned to the letter or symbol in green.

Symbols and words with = are used to enter a caption.

CAPTION   OFF

ON is displayed when printing with a caption and OFF when printing without a caption. (The factory-setting is OFF.)

By switching SHIFT to green and pressing EXEC, capital letters are changed to lower-case letters, or lower-case letters are switched to capital letters.

Selects whether to print with a caption

For the CAPTION input display, the video monitor and the printer display window differ as shown in the table. Their meanings, however, are the same.

Monitor display	Printer display
SPACE	SP
BACK SPACE	BS
OFF	OFF
ON	ON
SHIFT	SF sf

Entering a caption

1 Display the CAP-TION input display.


```
CAPTION          OFF
■--------------------
---------------------
---------------------
ABCDEFGHIJKLMN
OPQRSTUVWXYZ
0123456789 + - = %
. . . : ( ) | | | < >
! ? & / ' # $ ¥ £ @ - : ^
```

2 Move the cursor ■ to where you want to enter in the character display area.

To move the cursor
Switch the arrow of the direction where you want to move to green. Then press the EXEC button.
The ■ moves in the green arrow direction whenever you press the EXEC button.

Example: To move the cursor ■ to the left by two.


```
CAPTION          OFF
--■------------------
---------------------
---------------------
ABCDEFGHIJKLMN
OPQRSTUVWXYZ
0123456789 + - = %
. . . : ( ) | | | < >
! ? & / ' # $ ¥ £ @ - : ^
```
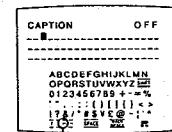
Switch ← to green

⬇

Press EXEC twice

```
CAPTION          OFF
■--------------------
---------------------
---------------------
ABCDEFGHIJKLMN
OPQRSTUVWXYZ
0123456789 + - = %
. . . : ( ) | | | < >
! ? & / ' # $ ¥ £ @ - : ^
```
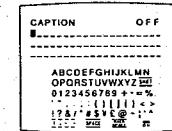
3 Switch the character you want to enter to green by pressing the △ ▽ ◁ or ▷ buttons, then press the EXEC button.

Example: To enter S.


```
CAPTION          OFF
■--------------------
---------------------
---------------------
ABCDEFGHIJKLMN
OPQR(S)UVWXYZ
0123456789 + - = %
. . . : ( ) | | | < >
! ? & / ' # $ ¥ £ @ - : ^
```
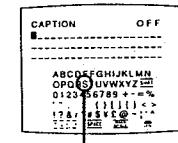
Switch S to green

⬇

Press EXEC

```
CAPTION          OFF
S■-------------------
---------------------
---------------------
ABCDEFGHIJKLMN
OPQRSTUVWXYZ
0123456789 + - = %
. . . : ( ) | | | < >
! ? & / ' # $ ¥ £ @ - : ^
```
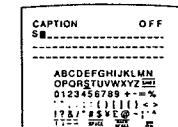
The selected character appears in blinking white ■.
SPACE: one space

4 Repeat steps 2 and 3 to enter the remaining characters of a caption.

Entered characters are stored and kept even after you turn off the power.

Note
When the character display area is displayed in white, the setting for CAPTION is OFF, so that you can not add a caption to a printout. See "Making printouts with a caption" on page 67.

When you enter a wrong character
Switch the $\overline{\text{BACK SPACE}}$ to green by pressing the △ ▽ ◁ or ▷ buttons, then press the EXEC button. The character to the left of ■ will be deleted.

When replacing a previously entered caption

Example: To replace B of BIDEO with V.

```
CAPTION          OFF
SONY_COLOR_BIDEO_PRI
NTER_UP-5100_SERIES■

ABCDEFGHIJKLMN
OPQRSTUVWXYZ
0123456789 +-=%
.,:;()[]|<>
!?&/'#$¥€@-¡'^
```

1 Switch the up arrow (↑) to green by pressing the △ ▽ ◁ or ▷ buttons, then press the EXEC button.

```
CAPTION          OFF
SONY_COLOR_BIDEO_PRI
NTER_UP-5100_SERIES■

ABCDEFGHIJKLMN
OPQRSTUVWXYZ
0123456789 +-=%
.,:;()[]|<>
!?&/'#$¥€@-¡'^
```

To move ■ to the above position

Move the cursor to ↑.

⬇

Press EXEC one time.

```
CAPTION          OFF
SONY_COLOR_BIDEO_PR■
NTER_UP-5100_SERIES_

ABCDEFGHIJKLMN
OPQRSTUVWXYZ
0123456789 +-=%
.,:;()[]|<>
!?&/'#$¥€@-¡'^
```

The white cursor ■ move to the above position.

2 Switch the left arrow to green and press the EXEC button until the white cursor ■ moves to the character you want to replace.

```
CAPTION          OFF
SONY_COLOR_BIDEO_PR■
NTER_UP-5100_SERIES_

ABCDEFGHIJKLMN
OPQRSTUVWXYZ
0123456789 +-=%
.,:;()[]|<>
!?&/'#$¥€@-¡'^
```

To move ■ to B

Move the cursor to ←.

⬇

Whenever you press the EXEC button, the white cursor shifts by one position.

```
CAPTION          OFF
SONY_COLOR_■IDEO_PRI
NTER_UP-5100_SERIES

ABCDEFGHIJKLMN
OPQRSTUVWXYZ
0123456789 +-=%
.,:;()[]|<>
!?&/'#$¥€@-¡'^
```

3 Enter the correct character over the wrong character.

The previously entered character is replace with the new one.

B was replaced with V and ■ moved to the right.

```
CAPTION          OFF
SONY_COLOR_VIDEO_PRI
NTER_UP-5100_SERIES■

ABCDEFGHIJKLMN
OPQRSTUVWXYZ
0123456789 +-=%
.,:;()[]|<>
!?&/'#$¥€@-¡'^
```

Making printouts with a caption

The factory setting for CAPTION is OFF (the printer prints without adding a caption). Set the CAPTION function to ON as follows.

1 Display the CAPTION input screen.
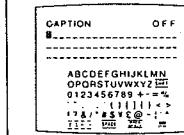
```
CAPTION          OFF
■

ABCDEFGHIJKLMN
OPQRSTUVWXYZ
0123456789 +-=%
.,:;()[]|<>
!?&/'#$¥€@-¡'^
```

2 Switch ON to green by pressing the △ ▽ ◁ or ▷ buttons.

```
CAPTION          OFF
SONY_COLOR_VIDEO_PRI
NTER_UP-5100_SERIES■

ABCDEFGHIJKLMN
OPQRSTUVWXYZ
0123456789 +-=%
.,:;()[]|<>
!?&/'#$¥€@-¡'^
```

Switched to green.

3 Press the EXEC button.

```
CAPTION          ON
SONY_COLOR_VIDEO_PRI
NTER_UP-5100_SERIES_

ABCDEFGHIJKLMN
OPQRSTUVWXYZ
0123456789 +-=%
.,:;()[]|<>
!?&/'#$¥€@-¡'^
```
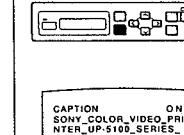
Note
- When you select four- or nine-image printing with white divisions, you can not add a caption.
- When you print in field mode, any caption will not be printed clearly.

1-10. ERROR MESSAGES

When the paper is exhausted, jams or other problems occur, the ALARM lamp lights in orange and an error message stating the problem appears on the video monitor and in the printer window display. Note the message and respond as necessary to rectify the error.

END OF RIBBON
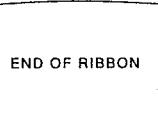
The ink ribbon has been completely used.
Insert a new ribbon.
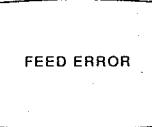
FEED ERROR

A feed error occurs when the paper jams as it is being fed into the ribbon area.

1 Remove the print tray.
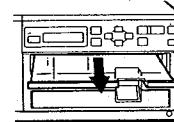
2 Reach through the opening and slide the paper back in the paper tray.
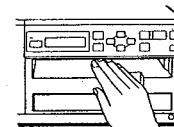
3 Remove the paper tray.
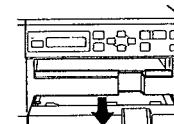
4 Straighten the paper in the tray properly below the teeth.

Under the teeth
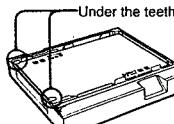
5 Replace the print tray and paper tray.
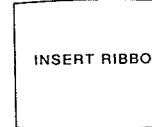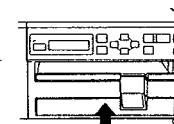
INSERT RIBBON

The ink ribbon cassette is not securely installed.

Insert the ink ribbon cassette firmly.
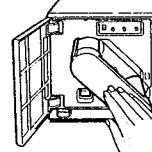
Push the cassette firmly in the center so that it clicks into place.

INSERT TRAY
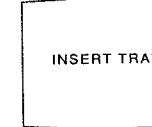
The paper tray is not properly mounted.

Mount the tray correctly.
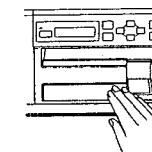
The tray should click in place.

NO INPUT
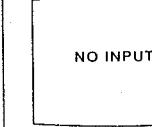
The printer is not receiving an input signal.

Check that:
- The INPUT SELECT setting is correct on MENU 1.
- The video equipment is playing.
- The connections between the video equipment and the printer are secure.

NO PAPER
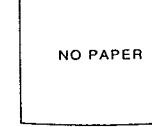
The paper tray is empty.

Fill the tray with paper or transparencies.

PLEASE WAIT

If you turn the printer off during printing, the printer ejects the unfinished printout. PLEASE WAIT appears on the video monitor when you turn the printer on again. Wait about 20 seconds before operating the printer.

PROCESS ERROR

A process error occurs when the paper jams during the printing process.
When this message appears before the printer starts printing, remove the paper similarly in the same way as when FEED ERROR appears, then reload the paper.
When this message appears during printing, remove the paper and load the paper again.

1 **Remove the paper tray.**
If you can't remove the paper tray, follow the steps given for FEED ERROR.
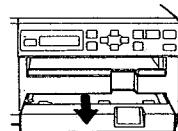
2 **Pull the paper back through the paper tray space and discard the unfinished printout.**

Pull the paper toward you.
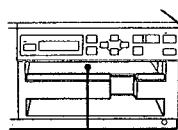
3 **Reinsert the paper tray.**
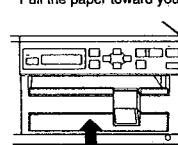
If you turn the printer off and then on again, the paper will be ejected automatically. Any images in memory, however, will be erased.
The paper may be visible above the print tray. In this case, pull the paper out from above the print tray.

RIBBON ERROR

The ink ribbon is torn or becomes tangled in the printer.

Remove the ink ribbon cassette, take up the slack and reinsert it.

1 **If the paper has become stuck as well, remove it as described under PROCESS ERROR.**
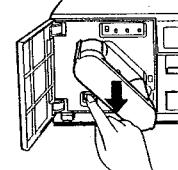
**2** **Open the ribbon door. Next, remove the ink ribbon by pressing the EJECT button.**
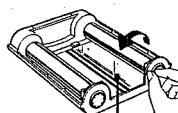
3 **Take up the slack by rolling the ribbon counterclockwise until the black bars are positioned between the rolls.**
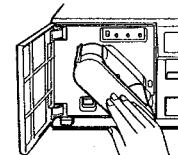
If the ink ribbon is torn, repair it with transparent tape. There should be no problem in using the remaining portion of the ribbon.

Position the black bars between the two rolls.

**4** **Reinsert the ink ribbon and close the cabinet.**

Push the cassette firmly in the center so that it clicks in place.
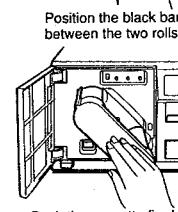
TURN PAPER OVER

The paper is upside down in the paper tray.

Turn the paper over so that the black mark are facing up.

This side up.

1-11. TROUBLE SHOOTING

Symptom	Causes and remedies
The printer does not print.	• An error message appears on the display. → See "Error Messages" on page 84. • Check that: The power is on. All connections are correct. → See page 18 for an explanation of the connections.
The printout is blurred.	Switch to field mode and print the image. (See page 62.)
A black line appears on the printout.	See "If a Black Line Appears on Printouts" on page 75 and adjust the image. Store a new image and print it. If a black line still appears on the printout. See "Changing the screen size" and change the screen size. Store a new image and print it.
The printer makes a printout with black divisions.	See "Changing the screen size" and change the screen size. Store a new image and print it.
The printed image or caption is partially cut out.	
Nothing appears on the video monitor.	If an incorrect sync signal is input, nothing may appear on the monitor. In this case, check the video monitor first by pressing the SOURCE/MEMORY button to display the image stored in memory. If an image appears, the video monitor is working correctly. → Change the INPUT SELECT settings on the menu screen. Or, set the connected video equipment to playback mode, if it is in another mode such as stop mode.